IN THE CLAIMS:

1. (Original)

A carburetor comprising:

a body;

an air passage in the body;

an air valve in the air passage, carried by an air valve shaft and movable between closed and fully open positions;

a mixing passage in the body;

a throttle valve in the mixing passage, carried by a throttle valve shaft and movable between an idle position and a wide open position;

a coupling operably connecting the throttle valve shaft and the air valve shaft and having an area wherein the air valve shaft and throttle shaft can rotate relative to each other through an angle which corresponds to a difference between the angle between the closed and fully open positions of the air valve and the angle between the idle and wide open positions of the throttle valve;

the coupling has a first half carried by the air valve shaft with two axially extending projections and a second half carried by the throttle valve shaft with two axially extending projections selectively engageable with the projections of the first half; and

a biasing member carried by the coupling and yieldably biasing the air valve to its closed position when the throttle valve is in its idle position or within the area wherein the throttle valve shaft and air valve shaft are relatively rotatable.

2. (Original)

The carburetor of claim 1 wherein the area corresponds to an angle between 3° and 10°.

3. (Original)

The carburetor of claim 1 wherein the coupling has a recess carried by one of the throttle valve shaft and air valve shaft and a projection received in the recess and carried by the other of the air valve shaft and throttle valve shaft.

4. (Original)

The carburetor of claim 1 wherein the coupling is constructed such that when the throttle valve is in its idle position permitting an idle air flow through the mixing passage the air valve is in its closed position at least substantially preventing air flow through the air passage.

5. (Original)

The carburetor of claim 1 wherein both the air valve and throttle valve are butterfly valves.

6. (Original)

The carburetor of claim 5 wherein the air valve is generally elliptical.

7. (Original)

The carburetor of claim 5 wherein the air valve has an inclined edge adapted to engage the body when the air valve is in its closed position to substantially prevent air flow through the air passage.

8. (Original)

The carburetor of claim 4 wherein the throttle valve is moved from its idle position towards its wide open position by between 5° and 7° before the air valve is moved from its closed position.

9. (Original)

The carburetor of claim 1 wherein the biasing member is a spring.

10. (Original)

A carburetor comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve carried by the body in the air passage and rotatable on an axis generally transverse to the air passage between closed and fully open positions;

a throttle valve carried by the body in the mixing passage and rotatable on an axis generally transverse to the mixing passage between idle and wide open positions, the air valve shaft being coaxially aligned with the throttle valve shaft; and

a coupling disposed between the air passage and the mixing passage and having an axially extending projection carried by the air valve shaft selectively engageable with an axially extending projection carried by the throttle valve shaft and the projections being configured so that the air valve is closed when the throttle valve is in its idle position, the throttle valve can be opened from its idle position to at least some angle before the air valve is moved from its closed position and thereafter further opening of the throttle valve toward its wide open position simultaneously moves the air valve toward its fully open position.

11. (Original)

The carburetor of claim 10 wherein the coupling is configured so that the throttle valve is movable from its idle position toward its wide open position through an angle of 3° to 10° before the air valve is moved from its closed position toward its fully open position.

12. (Original)

The carburetor of claim 10 wherein the air valve has an inclined edge configured to engage the body when the air valve is in its closed position to substantially prevent air flow through the air passage.

13. (Original)

The carburetor of claim 10 which also comprises a spring carried by the coupling and yieldably biasing the air valve to its closed position when the throttle valve is in its idle position.

14. (Twice Amended)

A carburetor, comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve including an air valve shaft carried by the body in the air passage for movement between closed and fully open positions to selectively permit a scavenging air flow to an engine with which the carburetor is used;

a throttle valve including a throttle valve shaft carried by the body in the mixing passage for movement between idle and wide open positions; and

a coupling with projections selectively interconnecting the air valve shaft and the throttle valve shaft so that the air valve is closed and not connected to the throttle valve when the throttle valve is in its idle position, the throttle valve can be moved a predetermined amount from its idle position toward its wide open position while the air valve is closed and before the air valve is connected to the throttle valve for movement from its closed position and thereafter further opening of the throttle valve toward its wide open position simultaneously moves the air valve toward its fully open position.

15. (Previously Presented)

The carburetor of claim 14 wherein the throttle valve is rotated between its idle and wide open positions and said predetermined amount includes rotation of the throttle valve of between 3 degrees and 10 degrees from its idle position toward its wide open position.

16. (Previously Presented)

The carburetor of claim 14 which also comprises a biasing member carried by the coupling and yieldably biasing the air valve to its closed position.

17. (Previously Presented)

The carburetor of claim 14 wherein the air valve, throttle valve and the coupling are constructed and arranged so that the air valve is in its fully opened position when the throttle valve is in its wide open position.

18. (Previously Presented)

The carburetor of claim 14 wherein the air valve has an inclined edge configured to engage the body when the air valve is in its closed position to substantially prevent air flow through the air passage.

19. (Previously Presented)

The carburetor of claim 14 wherein the air valve is carried by an air valve shaft that extends generally transversely to and through the air passage, and the throttle valve is carried by a throttle valve shaft that extends generally transversely to and through the mixing passage.

20. (Previously Presented)

The carburetor of claim 19 wherein the air valve shaft and the throttle valve shaft are disposed parallel to each other.

21. (Previously Presented)

The carburetor of claim 20 wherein the air valve shaft and throttle valve shaft are coaxially aligned.

22. (Previously Presented)

The carburetor of claim 21 wherein the coupling is disposed between the air valve shaft and the throttle valve shaft.

23. (Twice Amended)

A carburetor, comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve including an air valve shaft carried by the body in the air passage for movement between closed and fully open positions;

a throttle valve including a throttle valve shaft carried by the body in the mixing passage for movement between idle and wide open positions; and

a coupling selectively interconnecting the air valve and the throttle valve so that the air valve is closed when the throttle valve is in its idle position, the throttle valve can be moved a predetermined amount from its idle position toward its wide open position before the air valve is moved from its closed position and thereafter further opening of the throttle valve toward its wide open position simultaneously moves the air valve toward its fully open position wherein the

coupling includes a projection carried by the throttle valve shaft and a projection carried by the air valve shaft, said projections being spaced apart when said throttle valve is in its idle position and when said throttle valve is moved less than said predetermined amount from its idle position, said projections being engaged when the throttle valve is moved more than said predetermined amount from its idle position so that the air valve and throttle valve move together toward their fully open and wide open positions.

24. (Previously Presented)

The carburetor of clam 23 wherein said projections extend axially relative to the air valve shaft and throttle valve shaft.

25. (Previously Presented)

The carburetor of claim 14 wherein said air passage is maintained separate from said mixing passage and the air passage communicates with a combustion chamber of an engine with which the carburetor is used to provide a supply of scavenging air to the combustion chamber.

26. (Twice Amended)

A carburetor, comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve carried by the body in the air passage and including an air valve shaft extending transversely to the air passage, the air valve being rotatable with the air valve shaft between closed and fully open positions;

a throttle valve carried by the body in the mixing passage and including a throttle valve shaft extending transversely to the mixing passage, the throttle valve being rotatable between idle and wide open positions; and

a coupling with projections operably interconnecting the air valve shaft and the throttle valve shaft so that the air valve is closed when the throttle valve is in its idle position, the throttle valve can be moved a predetermined amount from its idle position toward its wide open position while the air valve remains closed and thereafter further opening of the throttle valve toward its wide open position simultaneously moves the air valve toward its fully open position.

27. (Previously Presented)

The carburetor of claim 26 wherein the coupling includes a first half carried by the air valve shaft and a second half carried by the throttle valve shaft.

28. (Previously Presented)

A carburetor, comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve carried by the body in the air passage and including an air valve shaft extending transversely to the air passage, the air valve being rotatable with the air valve shaft between closed and fully open positions;

a throttle valve carried by the body in the mixing passage and including a throttle valve shaft extending transversely to the mixing passage, the throttle valve being rotatable between idle and wide open positions; and

a coupling operably interconnecting the air valve shaft and the throttle valve shaft so that the air valve is closed when the throttle valve is in its idle position, the throttle valve can be moved a

predetermined amount from its idle position toward its wide open position before the air valve is moved from its closed position and thereafter further opening of the throttle valve toward its wide open position simultaneously moves the air valve toward its fully open position wherein the coupling includes a first half carried by the air valve shaft and a second half carried by the throttle valve shaft, and said first half includes at least one projection and said second half includes at least one projection with the projection of said second half being engageable with the projection of said first half when the throttle valve is moved at least said predetermined amount from its idle position toward its wide open position.

29. (Amended)

A carburetor for an air-scavenged engine, comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve including an air valve shaft carried by the body in the air passage for movement between closed and fully open positions;

a throttle valve including a throttle valve shaft carried by the body in the mixing passage for movement between idle and wide open positions; and

a coupling with projections interconnecting the air valve shaft and the throttle valve shaft so that the air valve is closed when the throttle valve is in its idle position, the throttle valve can be moved a predetermined amount from its idle position toward its wide open position while the air valve remains closed and thereafter further opening of the throttle valve toward its wide open position simultaneously moves the air valve toward its fully open position, and wherein the air valve, throttle valve and the coupling are constructed and arranged so that the air valve is in its fully opened position when the throttle valve is in its wide open position.

30. (Previously Presented)

The carburetor of claim 29 wherein the air valve reaches its fully opened position at substantially the same time that the throttle valve reaches its wide open position.

31. (Previously Presented)

A carburetor for an air-scavenged two-stroke engine, comprising:

a body having a scavenging air passage and a separate fuel and air mixing passage;

an air valve carried by the body in the air passage and including an air valve shaft, the air valve being rotatable with the air valve shaft between closed and fully open positions;

a throttle valve carried by the body in the mixing passage and including a throttle valve shaft, the throttle valve being rotatable between idle and wide open positions; and

a coupling operably interconnecting the air valve shaft and the throttle valve shaft, the coupling including a first half carried by the air valve shaft and having at least one projection and a second half carried by the throttle valve shaft and having at least one projection, the coupling being arranged so that the air valve remains closed when the throttle valve is in its idle position, the throttle valve can be moved a predetermined amount from its idle position toward its wide open position while the air valve remains closed and thereafter further opening of the throttle valve toward its wide open position moves the air valve toward its fully open position.

32. (Previously Presented)

The carburetor of claim 31 wherein the projections extend generally radially relative to their respective shafts.

33. (Previously Presented)

The carburetor of claim 31 wherein the projections extend generally axially relative to their respective shafts.